1. $b_0 = 35.946$, $b_1 = 0.5173$, $b_2 = -0.1644$, $b_3 = -1.0965$
$\hat{y} = 35.946 + 0.5173x_1 - 0.1644x_2 - 1.0965x_3$ (1.C),

2. 94.54% of the variability in y can be explained by all x's (2.D)

3. $b_2 = -0.1644$ one-unit ↑ on x_2, y ↓ by 0.1644, holding others constant.
(3.C)

4. Assessed: $x_1 = 70$ (units in $1,000); $x_2 = 20$, $x_3 = 1$ (old house)
$\hat{y} = 35.946 + 0.5173*70 - 0.1644*20 - 1.0965*1 = 67.773$
(4.A)

5. $t_{cal} = -1.592$ (from the computer output) (5.D)

6. $t_{cal} = -2.284$ (from the computer output) (6.B)

7. 99% CI for β_3: $b_3 = -1.0965$, $S_{b3} = 0.6888$.
CV: $t_{\frac{\alpha}{2}} = t_{0.005}$, DF = 32 − 3 − 1 = 28 (n − p − 1)
$= 2.7633$
CI: $b_3 \pm t_{\frac{\alpha}{2}} S_{b3} = -1.0965 \pm 2.7633 \times 0.6888 = [-2.9999, 0.8069]$
(7.P)

8. P-value $= 2.76*10^{-16} < \alpha = 0.01$, Reject H_0, Assessed is significant. Should be included in the model. (8.A)

9. P-value $= 0.0308 > \alpha = 0.01$, Fail to reject H_0. Time is not significant in explaining the selling price, should not be included in the model. (9.B)